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| Project Overview page 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Name of Project:** | | | Transforming my House (modified from the "House-Flip Project" on teacherweb.com) | | | | | | | | | | | | | | | | **Duration:** | | | 1 Class period | | | | | | |
| **Subject/Course:** | | | **Geometry** | | | | | | | **Teacher(s): Mr. Brooks** | | | | | | | | | **Grade Level:** | | | 10th Grade | | | | | | |
| **Other Subject Areas to Be Included:** | | |  | | | | | | | | | | | | | | | | | | | | | | | | | |
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| **Project Idea**  Summary of the issue, challenge, investigation, scenario, or problem: | | | The class will be divided into five groups of 4. Each group will be given a floor plan for a house which was purchased for $100,000 and needs to be fixed up for sale. The group will then calculate the expense of putting new floors, painting the walls, and adding a window air conditioning unit in the main bedroom. Finally, each group will calculate the sale price given the desire to make a 10% profit. A final paper will be given explaining the prices of each modification and the justification for the sale price of the house. The calculations should be briefly explained. | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Essential Question** | | | What are some of the most effective ways of fixing up a house for resale? | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Content Standards** to be taught and assessed**:** | | | SPI 3108.4.5 Describe solids and/or surfaces in three-dimensional space when given two-dimensional representations for the surface of three-dimensional objects.  SPI 3108.4.9 Use right triangle trigonometry and cross-sections to solve problems involving surface areas and/or volumes of solids. | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | **T** | **A** | **E** |  | | | | | | | | | **T** | | **A** | | | **E** |
| **Professional (21st Century) Skills** to be taught, assessed and/or encouraged**:** | | | Collaboration: Each student will be given a different task | | | | | | | |  |  |  | Other: A brief summary will be written showing the calculations and conclusion. | | | | | | | | |  | |  | | |  |
| Communication (Oral Presentation) | | | | | | | |  |  |  |  | | | | | | | | |  | |  | | |  |
| Critical Thinking/Problem Solving: Students will have to asses the floor plan and make appropriate calculations | | | | | | | |  |  |  |  | | | | | | | | |  | |  | | |  |
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| **Major Products & Performances** | Group: | | | The class will be divided into groups of four. Each group will be responsible for the calculations of the new floor, paint, air conditioner and new sale price. | | | | | | | | | | | | | | | | **Presentation Audience**   **Presentation Audience:**      Class   School | | | | | | | | |
|  | Class | | | | | | | |
|  | School | | | | | | | |
|  | Community | | | | | | | |
| Individual: | | | Each individual will have a task. One student will be responsible for calculating the amount and price of the new floor, another for the calculation of the amount and price of paint, and the third for the size and price of a new air conditioner. The fourth person will be responsible for the paper with the calculations and the sale price. | | | | | | | | | | | | | | | |  | Experts | | | | | | | |
|  | Web | | | | | | | |
|  | Other: Teacher | | | | | | | |
| Project Overview page 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Entry Event** to  launch inquiry,  engage students: | | Show a video demonstrating the rebuilding of a house. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Assessments** | | **Formative Assessments**  (During Project) | | | |  | | Quizzes/Tests | | | | | | | |  | | Practice Presentations | | | | | |  | | |
|  | | Journal/Learning Log | | | | | | | |  | | Notes | | | | | |  | | |
|  | | Preliminary Plans/Outlines/Prototypes | | | | | | | | x | | Checklists | | | | | |  | | |
|  | | Rough Drafts | | | | | | | |  | | Concept Maps | | | | | |  | | |
|  | | Online Tests/Exams | | | | | | | |  | | Other: Teacher will move around the classroom to observe that all understand the project and are on task. | | | | | |  | | |
| **Summative Assessments**  (End of Project) | | | | x | | Written Product(s), with rubric:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | | |  | | Other Product(s) or Performance(s), with  rubric:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | |  | | |
|  | | Oral Presentation, with rubric | | | | | | | |  | | Peer Evaluation | | | | | |  | | |
|  | | Multiple Choice/Short Answer Test | | | | | | | |  | | Self-Evaluation | | | | | |  | | |
|  | | Essay Test | | | | | | | | x | | Other: Teacher will grade final paper according to the rubric. | | | | | |  | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Resources Needed** | | **On-site people, facilities:** | | | | | | |  | | | | | | | | | | | | | | | | | | | |
| **Equipment:** | | | | | | | Calculator | | | | | | | | | | | | | | | | | | | |
| **Materials:** | | | | | | | Floor plans with price sheet of the different materials | | | | | | | | | | | | | | | | | | | |
| **Community resources:** | | | | | | |  | | | | | | | | | | | | | | | | | | | |
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| **Reflection Methods** | | **(Individual, Group, and/or Whole Class)** | | |  | | Journal/Learning Log | | | | | | | |  | | Focus Group | | | | | |  | | |  | | |
| x | | Whole-Class Discussion | | | | | | | |  | | Fishbowl Discussion | | | | | |  | | |  | | |
|  | | Survey | | | | | | | |  | | Other: | | | | | |  | | |  | | |